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Contribution of intermolecular associates and inversion of pyramid of antimony bonds in conformational exchange of certain 1,3,2-dioxastibinanes and 1,3,2-dioxastibepines

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Abstract

1. It has been shown for the first time by means of1H NMR that in solutions of cyclic compounds of trivalent antimony, dimeric structures with the participation, of endocyclic and exocyclic O atoms are realized. The molecular dynamics are determined by conformational conversions and also by the process of rupture and formation of dimeric bridge bonds Sb...O, this process of bond rupture and formation being the limiting stage of the overall process. The process mechanism has been established, and the energetics have been estimated. 2. The dominant conformations in the monomeric form have been determined, and the characteristics of the1H and13C NMR spectra are given for the particular compounds that have been studied. © 1985 Plenum Publishing Corporation.

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